

**ISSUES AND OPTIONS FOR THE MANAGEMENT OF  
ATLANTIC HIGHLY MIGRATORY SPECIES**

**SCOPING DOCUMENT**

U.S. Department of Commerce  
National Oceanic and Atmospheric Administration  
National Marine Fisheries Service  
Office of Sustainable Fisheries  
Highly Migratory Species Management Division  
1315 East-West Highway  
Silver Spring, MD 20910  
phone: 301-713-2347  
fax: 301-713-1917

10/21/97

## TABLE OF CONTENTS

PURPOSE OF THE SCOPING DOCUMENT	1
INTRODUCTION	2
THE HMS MANAGEMENT PROCESS	5
STATUS OF THE STOCKS	6
REBUILDING STRATEGY	8
DESCRIPTION OF FISHERIES	10
Commercial Fisheries	10
Recreational Fisheries	10
Management History	11
<i>International Management</i>	11
<i>Atlantic Tunas</i>	12
<i>Swordfish</i>	14
<i>Sharks</i>	16
<i>Billfish</i>	17
CURRENT FISHERY MANAGEMENT PLAN OBJECTIVES	19
Atlantic Tunas	19
Swordfish	20
Sharks	21
Billfish	21
Consistency with Other Applicable Laws	22
International Conservation and Management Agreements	22
ISSUES AND OPTIONS: ATLANTIC TUNAS, SWORDFISH AND SHARKS	23
ISSUES AND OPTIONS: ATLANTIC BILLFISH	33
APPENDIX I: HMS SCOPING SCHEDULE	36
APPENDIX II: SCHEDULE FOR DEVELOPMENT OF FMP DOCUMENTS	39
APPENDIX III: MAGNUSON-STEVENSON ACT REQUIREMENTS	40
REFERENCES	44
TABLES AND FIGURES	46

## **PURPOSE OF THE SCOPING DOCUMENT**

The purpose of this document is to inform the public of scoping undertaken by the National Marine Fisheries Service (NMFS) to gather information and to provide a mechanism by which the public can consider and comment on issues and options relative to the management of all Atlantic Highly Migratory Species (HMS). This scoping phase is the first step in the development of a fishery management plan (FMP) for Atlantic tunas, swordfish and sharks and a plan amendment for Atlantic billfish. The new management plan and plan amendment will likely include some management measures already in effect as well as new measures that will satisfy recent changes to the Magnuson-Stevens Fishery Conservation and Management Act. This document describes the major issues, current management and legal requirements, and identifies potential management measures (including measures already in effect) to address these issues in the fisheries for Atlantic HMS. In a series of public scoping meetings to be held during October and November 1997 (Appendix I), the NMFS seeks public input on these issues and options.

NMFS believes that critical advice from the public has the most impact when received at the start of the FMP development process (see Appendix II), and when it can be used to explore the full range of alternative approaches to future management. Accordingly, the views of the commercial fishing, recreational fishing, conservation, and scientific communities, the regional fishery management councils, the states, and the general public are being sought by NMFS through circulation of this issues and options document. NMFS anticipates that additional issues and options will be identified by the public during the series of scoping meetings.

## INTRODUCTION

NMFS, within the National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce (DOC), is developing Fishery Management Plans (FMPs) and FMP Amendments for Atlantic Highly Migratory Species (HMS) under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and the Atlantic Tunas Convention Act (ATCA). This HMS issues and options document is the first step in that process. The FMP development and amendment process is being undertaken to comply with new requirements of the Magnuson-Stevens Act, particularly the directive to rebuild overfished fisheries and to do so as rapidly as possible, but within ten years, unless the species' biology, environmental conditions or international agreements dictate otherwise.

The U.S. fisheries for Atlantic HMS are managed by NMFS, acting for the Secretary of Commerce (Secretary). Atlantic HMS include north Atlantic swordfish (*Xiphias gladius*), western Atlantic bluefin tuna (*Thunnus thynnus*), Atlantic yellowfin tuna (*T. albacares*), Atlantic bigeye tuna (*T. obesus*), albacore tuna (*T. alalunga*), skipjack tuna (*Katsuwonus pelamis*), Atlantic blue marlin (*Makaira nigricans*), Atlantic white marlin (*Tetrapturus albidus*), western Atlantic sailfish (*Istiophorus platypterus*), western Atlantic spearfish (*T. pfluegeri*), and species groups of large coastal sharks, small coastal sharks and pelagic sharks (see Table 1).

The principal sections of the Magnuson-Stevens Act that pertain to the provisions and standards for management are attached in Appendix III. Section 303(e) of the Magnuson-Stevens Act, as amended by the Sustainable Fisheries Act, requires the Secretary to report annually to Congress and the regional fishery management councils on the status of fisheries within each Council's geographical area of authority and to identify those fisheries that are overfished or are approaching an overfished condition. On September 30, 1997, NMFS delivered to the Councils and to the HMS Division the *Report on the Status of the Fisheries of the U.S.* (Report) identifying fish stocks that are overfished and stocks that are approaching an overfished condition. In the Report, NMFS identified the following HMS as overfished:

- Western Atlantic bluefin tuna
- Atlantic blue marlin
- Atlantic white marlin
- North Atlantic swordfish
- Large Coastal Sharks of the Atlantic

As required by section 304(e) of the Magnuson-Stevens Act, within one year of the identification, NMFS must develop for final agency consideration an FMP or FMP amendment to end overfishing and to rebuild the affected stocks. In addition to the development of a rebuilding program, the Magnuson-Stevens Act requires the agency to amend current FMPs to include the required provisions of an FMP, some of which are new. Specifically, the agency must, by October 11, 1998, develop (for final agency consideration) objective and measurable criteria to identify when a fishery is overfished, provisions for minimization of bycatch and bycatch mortality, and provisions for identification and protection of essential fish habitat (EFH) (see Appendix III for the complete list of required provisions).

In order to receive essential public input on issues in the fishery and options for future management, NMFS is conducting a series of scoping meetings in late October and early November 1997. Following the scoping process, the HMS Division will narrow the scope of the

issues as well as the options for each issue. These will form the basis for an outline of the draft Environmental Impact Statement (DEIS) as required under the National Environmental Policy Act (NEPA). Currently NMFS is planning to prepare one DEIS for all HMS species. The DEIS requires NMFS to consider the full range of alternatives available for future management as well as the potential impacts of each measure on the human and natural environments. The HMS and Billfish Advisory Panels (APs) will review the draft outline and/or DEIS so that NMFS may receive further comment. The revised DEIS will form the basis for preparing three FMP documents:

- (1) a draft FMP amendment for billfish;
- (2) a draft HMS FMP, which will be the new tuna FMP, and which will replace, by amendment, the shark and swordfish FMPs; and
- (3) a generic EFH amendment for all HMS species.

Note that a separate FMP (and thus AP) is being maintained for billfish, due primarily to their exclusively recreational status. NMFS will strive to evaluate HMS fishery management issues and options, and conduct analyses in a combined, holistic fashion, in order to reflect the multispecies nature of many of these fisheries, as well as their overlapping participants and shared habitat.

Atlantic HMS, other than sharks, are also managed internationally by the International Commission for the Conservation of Atlantic Tunas (ICCAT), which makes recommendations on harvest levels, minimum size limits and other management measures. Stock assessments and advice are provided to ICCAT by its Standing Committee on Research and Statistics (SCRS). The United States implements ICCAT's recommendations under authority of the Atlantic Tunas Convention Act (ATCA). ICCAT's stated management objective for such species is to maintain population at levels that allow maximum sustainable catch. Under ATCA (as well as the Magnuson-Stevens Act), no regulation may have the effect of increasing or decreasing any ICCAT quota; however, the United States may adopt more restrictive standards for other measures, such as minimum size, sale restrictions, and gear restrictions. In addition, Section 304(g)(1)(C) of the Magnuson-Stevens act indicates that conservation and management measures should minimize, to the extent practicable, any disadvantage to U.S. fishermen in relation to foreign competitors.

This scoping document begins with a description of the management process for HMS under the new Magnuson-Stevens Act, including the role of the new APs. The status of the HMS stocks is then reviewed, along with a brief overview of the rebuilding strategies that are required for overfished species. This is followed by a background description of the commercial and recreational sectors, the history of their management, and the current FMP objectives. These sections provide a basis for considering current issues in the HMS fisheries, along with the possible options for addressing these issues. An earlier draft of this document was reviewed by the HMS and Billfish APs and significant revisions were made to reflect their comments. Scoping meetings will provide an opportunity for all affected participants to identify additional issues, suggest alternative measures for addressing these issues, and consider the possible effect of these measures on the fishery.

## THE HMS MANAGEMENT PROCESS<sup>1</sup>

This scoping document, and announcement in the Federal Register of NMFS' intent to develop FMP documents to implement measures designed to rebuild stocks of all Atlantic HMS, are the first steps in the formal FMP development process. Appendix I lists the 21 public scoping meetings that will be held throughout the Atlantic, Gulf of Mexico and the Caribbean regions to solicit public input on this document. This issues and options document and the accompanying public scoping meetings are an opportunity for constituents to tell NMFS about concerns regarding the resource or the fishery, problems in these fisheries, measures that should or should not be taken to better manage the fisheries, and what the U.S. long-term strategy should be both nationally and internationally in managing these species.

As required by the Magnuson-Stevens Act, NMFS has formed Advisory Panels (APs) for billfish and for tunas, swordfish and sharks to assist in the development of FMP documents. NMFS has also formed a third AP to assist in identifying and evaluating future management options in the pelagic longline fishery for HMS. With extensive input from the public and the Billfish and HMS Advisory Panels, NMFS plans to prepare an FMP for Atlantic tunas, swordfish and sharks and an amendment to the Billfish FMP. NMFS elected to combine the FMP for tunas, swordfish and sharks in recognition of the multispecies nature of these fisheries and to promote better integration of HMS management. One FMP will help ease the regulatory burden on user groups and is consistent with the ecosystem-oriented provisions of NEPA and the Presidential Regulatory Reform Initiative. The Atlantic billfish fishery is a recreational fishery and will continue to be managed under a separate FMP.

NMFS met with the Billfish and HMS Advisory Panels (APs) during the preparation of this document and will meet again with the HMS and Billfish APs following the scoping period to help review and assimilate public input to the issues and options document, to consider narrowing the scope of issues and options for further analysis, and to draft management documents. NMFS and the APs will consider public input on the issues and options and will identify the potential effects of the full range of proposed management alternatives. Following this input by the public and the APs, NMFS will develop and publish draft FMP documents, proposed regulations and draft EIS documents for review first as a pre-draft by the APs, the ICCAT Advisory Committee (IAC), Fishery Management Councils, and states, then by the public. Following public review and comment on these draft documents, NMFS will develop and publish an FMP (or amendment), final rules and EIS documents. NMFS anticipates that the regulations will also be implemented under the authority of the Atlantic Tunas Convention Act, 16 U.S.C. 971.

---

<sup>1</sup> A proposed revised HMS management process was published for public comment in the *Federal Register* on September 18, 1997.

## STATUS OF THE STOCKS

As required by the Magnuson-Stevens Act, NMFS recently prepared a report to Congress that classified fisheries as overfished or not based on definitions in existing fishery management plans. For those fisheries that do not currently have a management plan, such as Atlantic tunas, the classification found in NOAA's *Our Living Oceans* was used. According to the Magnuson-Stevens Act, NMFS must prepare rebuilding plans by September 30, 1998 for those fisheries that are classified as "overfished" in the report to Congress. Table 1 lists HMS-managed species and their status relative to overfishing. Figure 1 shows trends in populations of tunas, swordfish, sharks and billfish, expressed as relative biomass (total weight) in relation to the MSY that has been estimated for each stock, and expressed as relative fishing mortality rates compared to those needed to produce MSY.

Western Atlantic bluefin tuna are among the species identified as overfished. While the fishing mortality rate is now low for this stock (approximately equal to replacement yield), its total biomass is estimated to have been reduced by overfishing to between 6 and 12 percent of that needed to produce MSY (NMFS, 1996). Bigeye, albacore, yellowfin and skipjack tuna are classified as not overfished in the report to Congress. Current fishing mortality rates on bigeye tuna are well in excess of the stock's replacement yield and the stock is expected to decline if fishing mortality continues at the current rate. Fishing mortality rates for albacore and yellowfin tuna are at the upper range of the stocks' replacement yields and the stocks are currently believed to be declining slightly. No assessment of skipjack tuna has been conducted and the stock is classified by ICCAT as moderately exploited. North Atlantic swordfish are also listed as overfished. From the early 1960s to 1995, the north Atlantic swordfish stock declined to 58 percent of MSY level and the current fishing mortality rate exceeds that needed to produce MSY. Fishing mortality rates for the Atlantic tunas, except bluefin tuna, and swordfish are estimated to be near or well beyond levels that indicate "recruitment overfishing" (meaning fishing pressure is too heavy to allow a population to replace itself).

Large coastal sharks are classified as "overfished" in the report to Congress and it is unknown whether small coastal sharks and pelagic sharks are approaching an overfished condition. The available data indicate that the catch rates of many species of large coastal sharks have declined by about 50 to 75% from the early 1970s to the mid 1980s. The most recent data indicate that the rapid rate of decline that characterized the large coastal stocks in the mid 1980s has slowed significantly. Abundance estimates from the more recent years are variable and a significant statistical trend, either up or down, cannot be detected.

Both blue marlin and white marlin are continuing to decline and are classified as overfished in NMFS' report to Congress. The most recent billfish stock assessment (ICCAT, in press, pp 44-53) by ICCAT's Standing Committee on Research and Statistics (SCRS) was conducted in July of 1996 for Atlantic blue marlin and Atlantic white marlin data through 1995. The relative biomass ( $B/B_{msy}$ ) of Atlantic blue marlin has declined consistently since 1989 and by the beginning of 1996 had declined to 23.6 percent of the level needed to produce MSY. In addition, the relative fishing mortality ( $F/F_{msy}$ ) had increased for three consecutive years and was estimated to be 2.87 in 1995, nearly two times higher than the proposed overfishing threshold level of 1.5. Accordingly, this Atlantic-wide stock is severely recruitment overfished. Similarly, the relative biomass of Atlantic white marlin at the beginning of 1996 was estimated to be 22.6 percent of the level needed to produce the MSY.

The overfishing status of West Atlantic sailfish and longbill spearfish is classified as unknown in the report to Congress. The species were assessed by ICCAT's Standing Committee on Research and Statistics (ICCAT, in press, pp 54-57) in 1993 using data through 1991. An assessment was also conducted in 1995 for data through 1992, but results were inconclusive. The relative biomass of west Atlantic sailfish was estimated in 1991 at 62 percent of that needed to produce MSY.

All HMS are fished by many nations, so the problem of rebuilding these stocks will require not only domestic but also international action to the extent possible. As an example, the U.S. domestic fleet accounts for the following percentages of the recent international catch of each stock: north Atlantic swordfish (29 percent), the western Atlantic bluefin tuna quota (52 percent), Atlantic yellowfin tuna (5 percent), and Atlantic bigeye tuna (1 percent). For 1995 the U.S. share of Atlantic billfish mortality was 5% for blue marlin and 11% for white marlin. NMFS intends to develop strategies for both domestic and international management of all HMS stocks.



## REBUILDING STRATEGY

While there are numerous issues to consider in the management of HMS, in many cases rebuilding overfished stocks is the primary problem to be addressed. Rebuilding stocks to the MSY level will enhance commercial and recreational fisheries, promotes the sustainability of HMS stocks and recognizes the ecological importance of these apex predator species to marine ecosystems. For overfished stocks, the Magnuson-Stevens Act requires that NMFS develop an FMP or amendment to end overfishing and rebuild the stock. As classified in NMFS' recent report to Congress on overfished fisheries, this requirement applies to Atlantic bluefin tuna, Atlantic swordfish, the 22 species-complex of large coastal sharks, and Atlantic blue and white marlin. The first step in rebuilding Atlantic HMS is to reduce fishing mortality to levels that will allow the stocks to rebuild to the MSY level within a time period specified for each, but which is consistent with the Magnuson-Stevens Act's directive to do so as quickly as possible but within 10 years, unless prevented by the species' biology, other environmental conditions or by international agreement. The law also requires that the rebuilding strategy shall allocate restrictions and benefits equitably among sectors of the fishery and shall reflect traditional participation in the fishery by U.S. fishermen relative to foreign competitors.

Recognizing the intense fishing pressure on Atlantic HMS, ICCAT and NMFS have taken steps in recent years to reduce fishing mortality on stocks of Atlantic HMS. ICCAT has recommended, and NMFS has published a proposed rule to implement, gradual quota reductions for Atlantic swordfish for 1997, 1998 and 1999. NMFS has also implemented minimum size restrictions and/or trip limits in the swordfish, tuna and shark fisheries. While these initial steps are important in reducing fishing mortality on depleted stocks, they may not fully constitute a coordinated rebuilding program for the stocks.

Other means to rebuild and conserve HMS that might be included in a rebuilding program are reducing the fishing pressure on spawning and juvenile HMS target species and minimizing the associated bycatch of these species. Conserving spawning and immature fish as sanctioned by ICCAT for swordfish<sup>2</sup> through (1) time and area closures and (2) increasing the minimum size limits could be considered by the United States and by ICCAT member nations.

In addition to improving domestic management, cooperative international conservation of these HMS stocks is critical to the success of rebuilding programs. Conservation measures implemented by the U.S. are an important component of an international conservation strategy. However, the U.S. must also work cooperatively to encourage other countries to implement and comply with conservation-oriented management recommendations of ICCAT to promote Atlantic-wide stock rebuilding. International compliance with ICCAT recommendations could be improved if all ICCAT nations ratified the new U.N. Convention on Fisheries Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks and the U.N. Code of Conduct for Responsible Fishing. Both have been ratified by the United States. The policy contained in these conventions is very similar to that contained in the Magnuson-Stevens Act, including rebuilding of all overfished stocks, and will help ensure

---

<sup>2</sup> In 1990, when ICCAT recommended that "Contracting Parties take the necessary measures" to prohibit the taking and landing of small swordfish, it also encouraged Contracting Parties "to take other appropriate measures within their national jurisdictions to protect small fish, including, but not limited to, the establishment of time and area closures."

pro-active conservation strategies and adherence to ICCAT recommendations by all nations participating in the fisheries.

## **DESCRIPTION OF FISHERIES**

U.S. vessels, both recreational and commercial, fish for Atlantic HMS along the Atlantic and Gulf Coasts as well as in the Caribbean Sea. The fisheries for Atlantic tunas, swordfish, sharks and billfish each have unique characteristics, though they overlap a considerably in participants, gear usage and species pursued. A very brief outline of the fisheries for Atlantic HMS follows. Additional details about these fisheries and their management is available in existing reports, and updated information will be contained in EIS documents that will be written as the next phase of the FMP-development process. Further information can also be obtained by contacting the Highly Migratory Species Management Division at (301) 713-2347.

### **Commercial Fisheries**

Highly migratory species frequently co-occur in commercial fisheries. Longline and drift gillnet gear, for example, often harvest swordfish and tunas while longline gear also is used to target sharks. Purse seine gear and hand gear (harpoon, rod and reel, and handline) are used to harvest Atlantic bluefin tuna (ABT) commercially. There is no domestic commercial fishery for billfish although they are commonly taken as bycatch in domestic and international commercial fisheries for HMS, particularly by pelagic longline gear. Bycatch management in commercial fisheries for Atlantic HMS must include provisions to reduce the bycatch of protected marine mammals and endangered species, consistent with the Marine Mammal Protection Act and the Endangered Species Act. Because these species are frequently targeted together in the HMS commercial fisheries, a single FMP will be developed to manage swordfish, sharks, and tunas. Details about participants and landings for each commercial fishery may be found in the Billfish FMP, Swordfish FMP, Shark FMP, and the Environmental Impact Statement for ABT and will be updated as these documents are amended.

### **Recreational Fisheries**

Tunas, billfish, and sharks are commonly caught in the recreational fishery in the Atlantic Ocean, Gulf of Mexico, and Caribbean Sea. Sharks and small tunas such as albacore and bonito are frequently caught in nearshore areas, creating easy access to the recreational fishery. There is an active recreational fishery for Atlantic bluefin tuna from North Carolina to Maine, while yellowfin tuna is the principal species of tropical tuna landed by U.S. recreational fishers in the western North Atlantic. The billfish fishery is a recreational fishery: the sale of Atlantic billfish is banned in the United States. A once popular recreational fishery for swordfish has declined due to overfishing. Recreational fisheries and related industries continue to maintain a high economic value. Details on recreational fisheries by species can be found in recent Environmental Assessments and will be revised as these documents are updated.

## Management History

This section is intended to give an overview of recent management for each HMS or group of species. Additional information on recent regulatory actions can be found on the World Wide Web at [http://www.access.gpo.gov/su\\_docs/aces/aaces002.html](http://www.access.gpo.gov/su_docs/aces/aaces002.html) or by calling the Highly Migratory Species Management Division at (301) 713-2347.

### *International Management*

The International Convention for the Conservation of Atlantic Tunas (Convention) was ratified by the United States in 1967 and currently includes twenty five member countries. The objective of the Convention is to maintain populations of tuna and tuna-like fishes at levels which will permit the maximum sustainable catch. The Contracting Parties to the Convention established a Commission (ICCAT) whose purpose is to carry out the objectives of the Convention. ICCAT is responsible for the scientific study of the populations of tuna and tuna-like fishes and such other species of fishes exploited in tuna fishing in the Convention area.<sup>3</sup> Based on these findings, ICCAT may make recommendations designed to sustain populations of these tuna and tuna-like species. Recommendations become binding obligations on ICCAT members six months after formal notification, unless a contracting party takes a legal reservation to the measure. To date, ICCAT has adopted recommendations on North Atlantic bluefin tuna, North and South Atlantic swordfish, bigeye tuna, yellowfin tuna, and South Atlantic albacore. In addition, the ICCAT has adopted non-binding measures for certain species, including billfishes.

Congress enacted ATCA, 16 U.S.C. § 971 et seq., in 1975, to provide the framework for the United States' participation in ICCAT and, because the Convention is not self-executing, to provide authority for domestic regulations to implement ICCAT recommendations. The Secretary of Commerce, acting through NMFS, is delegated the authority to adopt regulations necessary "to carry out the purposes and objectives of the Convention," and to promulgate regulations "as may be necessary and appropriate to carry out" the recommendations of ICCAT. In November 1990, Congress amended ATCA to require, inter alia, that "no regulation promulgated under this section may have the effect of increasing or decreasing any allocation or quota of fish to the United States agreed to pursuant to a recommendation of the Commission."<sup>4</sup>

### *Atlantic Tunas*

There is currently no FMP for Atlantic tunas; regulations governing the conduct of the U.S. Atlantic tuna fisheries are promulgated under the authority of ATCA. Implementing regulations are found at 50 CFR part 285. The Secretary will continue to issue regulations governing the tuna

---

<sup>3</sup> ICCAT defines tuna and tuna-like fishes as the Scombriformes with the exception of the families Trichuridae and Gempylidae and the genus Scomber).

<sup>4</sup> The Secretary of Commerce has delegated responsibilities under ATCA to the Administrator of the National Oceanic and Atmospheric Administration (NOAA). See Department Organization Order 10-15, § 3.01(aa). This authority has been further delegated to the Assistant Administrator for Fisheries (Director of NMFS), which is the division within NOAA that is responsible for management of the nation's fisheries.

fisheries under the authority of the ATCA until a Fishery Management Plan (FMP) is developed and regulations are issued under the Magnuson-Stevens Act. Tables 2 and 3a-3e indicate recent landings of Atlantic tunas in the United States. Because recreational landings of Atlantic tunas are estimated through a survey methodology, and because landings are in some cases under-reported, NMFS is aware that Atlantic tunas data may be incomplete. NMFS is committed to improved monitoring of these fisheries and to revisions as appropriate. In addition, the Atlantic Offshore Cetacean Take Reduction Team considered management alternatives for the drift gillnet and longline fisheries with respect to protected species bycatch.

### Bluefin Tuna

At the 1981 ICCAT meeting, the Commission considered recent stock assessments that showed a continued decline of bluefin in the western Atlantic ocean. The SCRS recommended that harvest levels of bluefin be as near zero as feasible for two years, with the small amount of catch for scientific monitoring purposes only, and ICCAT adopted management measures for the western Atlantic which significantly limited the United States and the total western Atlantic harvest. Officials of the United States, Japan, and Canada, the three ICCAT member nations most actively fishing for bluefin in the western Atlantic, consulted and agreed on measures, including a total allowable catch (TAC) of 1,160 mt for 1982, to implement the ICCAT recommendations.<sup>5</sup> Due to the need for improved data from the fishery and uncertainty in stock assessment results and appropriate scientific monitoring levels, ICCAT increased the TAC to 2,660 mt for 1983; this TAC and the U.S. portion of 1,387 mt were held constant through 1991.

Since 1991, NMFS has taken the following major domestic management actions: in 1991, NMFS adopted ICCAT-recommended measures to compensate for overharvests by reducing the subsequent annual or biennial quota of the responsible catch category, and to limit the harvest of ABT weighing less than 66 lb. (school size ABT) to no more than 8% (by weight) of the domestic quota.

In 1992, NMFS limited incidentally caught bluefin, prohibited the sale of school, large school, and small medium ABT, and prohibited retention of young school (<27 inches) ABT.

In 1993, NMFS required ABT dealers to submit daily reports via FAX rather than weekly reports, required vessels fishing in the Angling category to obtain Atlantic bluefin tuna permits, and established authority for inseason adjustments to the Angling category.

In 1994, NMFS set a control date of September 1, 1994, to advise current and future participants that access to the fishery may be limited at some point in the future, and that access after the control date is not assured.

In response to a NOAA request, the National Research Council of the National Academy of Sciences and Engineering reviewed and evaluated the scientific basis of U.S. management of fisheries for ABT and recommended research to resolve remaining stock structure issues. NRC advised that new scientific assessments be undertaken, explicitly including mixing of ABT between

---

<sup>5</sup> These measures included a scientific monitoring quota of 1,160 mt for the entire Western Atlantic and an allocation of the quota between these three countries (U.S. - 605 mt; Japan - 305 mt; Canada - 250 mt).

eastern and western fishing grounds, and that MSY for ABT be re-evaluated under a one-stock hypothesis with two spawning grounds. The Council's research recommendations included the testing of the one-stock hypothesis, estimation of spawning biomass, sex ratio, age at maturity, and spawning ground fidelity. The use of microconstituent analysis, genetic studies, and archival tagging was recommended to study the stock structure/spawning fidelity questions. Over the last few years, NMFS has implemented several of the NRC recommendations, including genetic studies, archival tagging pilot studies, and is beginning an effort towards microconstituent analysis. Other ABT research includes post-release trauma, collection and analysis of ABT biological samples, and data collection and analyses for economic studies on recreational fishing.

Annually since 1995, regulations for the Atlantic tuna fisheries have implemented ABT General category effort controls, in which the General category quota is split into time period subquotas based on historical catch patterns since 1983 and restricted-fishing days are set. In 1997, NMFS amended the Atlantic tunas regulations to prohibit the retention of ABT less than the large medium size class by vessels permitted in the General category (effective January 1, 1998), prohibit fishing for ABT of all sizes by persons aboard General category vessels on designated restricted-fishing days, divide the Angling category quota for large school/small medium and large medium/giant ABT into north and south regional subquotas, and establish a new Atlantic tunas permit program to provide for category changes, annual renewals, and the collections of fees. General, Charter/Headboat, and Angling category vessel operators are now required to report the landing of all ABT under 73 inches using the toll-free system established for the permit program, which is being operated for NMFS by a private contractor. Also in 1997, NMFS amended the regulations to prohibit the use of aircraft to assist fishing vessel operators in the location and capture of ABT, with the exception of vessels permitted in the Purse Seine and Harpoon categories, and to prohibit importation of ABT and ABT products in any form harvested by vessels of Panama, Honduras, and Belize, nations identified as fishing in a manner inconsistent with ICCAT conservation recommendations.

NMFS is conducting the analyses necessary to amend regulations concerning bluefin tuna dead discards by the incidental longline bluefin tuna fishery. The 1996 ICCAT recommendation calls on the United States to implement measures designed to reduce dead discards of bluefin tuna during 1997-98. Total ABT longline discards in 1995 and 1996 are estimated to be 142 mt and 74 mt respectively. NMFS has received comments from the public that the target catch requirements for landing a bluefin tuna, in combination with shark trip limits, may lead to continued dead discards even though the incidental quota is unused. NMFS published an Advance Notice of Proposed Rulemaking (ANPR) in 1996, announcing that it was considering rulemaking on this issue and an analysis of landings is currently underway to determine if rulemaking is appropriate, including changes to target catch requirements and/or time area closures. Measures implemented in the target fisheries in which ABT are taken as a bycatch should also affect the total level of ABT dead discards; for swordfish and large coastal sharks, quotas have been added, closures have been effected, and limited access will be implemented.

#### Bigeye, Albacore, Yellowfin and Skipjack (BAYS) Tunas

As is the case with Atlantic bluefin tuna, there is no fishery management plan for BAYS tunas and current regulations are issued under the authority of the Atlantic Tunas Convention Act. BAYS tunas are caught primarily by rod and reel and longline fishing vessels, although purse seines, harpoons, drift gillnets, handlines and bandit gear are also authorized to fish for BAYS tunas. The fishery is open access with limited access for purse seine vessels. Vessels and dealers are subject to permitting and reporting requirements and fishing for BAYS tunas is covered under

the same permit as is fishing for bluefin tuna. Although ICCAT recommended a minimum size of 22 inches curved fork length for landing bigeye and yellowfin tuna, NMFS established a minimum size of 27 inches for these species to reduce problems associated with misidentification of juvenile tunas and improve compliance with the ICCAT recommendation on ABT minimum size. The U.S. does not have any management measures beyond permitting, reporting and gear restrictions in place for skipjack and albacore tuna.

The U.S. share of total fishing mortality of BAYS tunas is very small. U.S. commercial and recreational vessels combined account for less than 1% of the Atlantic-wide mortality of bigeye, albacore and skipjack tuna and approximately 5% of that for yellowfin tuna. ICCAT's SCRS has expressed concern about the increasingly heavy fishing pressure on juvenile bigeye and yellowfin tuna in the eastern Atlantic.

### *Swordfish*

The U.S. Atlantic swordfish fishery is managed under the Fishery Management Plan for Atlantic Swordfish (FMP) and its implementing regulations at 50 CFR part 630 under authority of the Magnuson-Stevens Act and ATCA. The FMP was implemented in September 1985. Regulations to govern the Atlantic swordfish fishery also are authorized under ATCA, which directs the Secretary of Commerce to promulgate such regulations as may be necessary to carry out ICCAT recommendations.

The directed commercial fishery is confined by regulation to three gear types: longline, harpoon, and drift gillnet. Catches by other gear are restricted to bycatch trip limits of 2 to 15 swordfish per trip depending on gear type. Approximately 98 percent of the directed fishery quota is allocated to the longline and harpoon sectors combined. Pelagic longlining accounts for the vast majority of landings as harpoon landings are now very small (usually less than 25,000 lb per year). The drift gillnet fishery is limited to an annual quota of 47 mt (104,000 lb) dw in 1996, approximately two percent of the directed-fishery quota of 2,371 mt (5.2 million lb) dw. This fishery has been closed under an emergency rule since December 1, 1996, and will remain closed until November 26, 1997, or until management options for this gear are developed that will not jeopardize the continued existence of the right whale. The 1997 quota allocated to the drift gillnet fishery is 42.8 mt dw. Total U.S. discards for 1995 and 1996 were approximately 526 mt and 589 mt respectively.

On May 31, 1996, NMFS published a final rule in the *Federal Register* to amend regulations governing the Atlantic swordfish fishery to: (1) reduce the total allowable catch (TAC) to 2,625 mt dw (5.78 million lb), (2) introduce the concept of a split season (June 1 through November 30, 1996, and December 1, 1996 through May 31, 1997) with a bridge season from January 1 to May 31, 1996, (3) substitute an alternative minimum size limit of 33 lb dw with zero tolerance for undersized fish in place of the existing minimum size limit of 41 lb dw with a 15 percent (by number) trip allowance for undersize fish, and (4) make technical changes to ensure the consistency of regulations. On October 21, 1997, NMFS filed a final rule to amend regulations governing the Atlantic swordfish fishery to: reduce the quota in the North Atlantic Ocean to 2,458 mt dw for 1997, 2,393 mt dw for 1998, and 2,327 mt dw for 1999, with one half of each year's quota allocated equally to each of two semi-annual fishing seasons; define the south Atlantic swordfish stock, set a 188 mt dw quota for that stock for 1997, and implement the same management measures for the south Atlantic swordfish stock as are currently in place for the north Atlantic swordfish stock, such as minimum size limit, vessel permitting, logbook reporting, and observer requirements. In addition, NMFS has published an Advanced Notice of Proposed Rulemaking to address the issue of a ban on the sale of swordfish less than the minimum size limit

(33 lb dw) recommended by ICCAT.

In early 1997 NMFS published a proposed rule to amend the FMP for Atlantic Swordfish. Amendment 1 to the swordfish FMP would implement limited access measures for the Atlantic swordfish fisheries by establishing a two-tiered permit system for the Atlantic swordfish commercial fishery, setting forth eligibility criteria for those permits based on historical participation, and limiting the transferability of those permits. NMFS has determined that the Atlantic swordfish fishery is overcapitalized in that there are more vessels permitted in the fishery than are necessary or desirable to harvest the total allowable catch (TAC). Approximately 950 vessel owners are "current permit holders," but only about 300 regularly land swordfish. The inactive permitted vessels represent a potential for increased overcapitalization, shortened fishing seasons, and significant economic impact should speculative permit holders begin to participate in the fishery. The creation of a limited access system would be an initial step toward making fleet capacity more compatible with resource productivity to ensure the long-term sustainability of the stock and the fishery. The comment period on the proposed rule ended April 28, 1997 and those comments are currently undergoing Agency review. NMFS anticipates implementing limited access measures in the Atlantic swordfish fisheries on December 1, 1997.

### *Sharks*

NMFS prepared the Fishery Management Plan for Sharks of the Atlantic Ocean (FMP) for the Secretary of Commerce under authority of the Magnuson-Stevens Act. Section 304(g) of the Magnuson-Stevens Act authorizes the Secretary to prepare and implement a fishery management plan with respect to any fishery needing management and conservation. The Shark FMP was implemented with the regulations of April 1993, and further regulatory adjustments have been made in the four years since implementation of the FMP.

In recent decades, sharks have been heavily exploited initially in the recreational fishery and subsequently in the commercial fishery as a result of increased demand for their meat, fins, and cartilage. In addition, mortality is reported to be high for sharks that are caught as bycatch in the swordfish, tuna, and shrimp trawl fisheries. Tables 3f and 3g show catches and landings of Atlantic sharks in the recreational and commercial fisheries, respectively. The 1994 Shark Evaluation Workshop (SEW) determined that the large coastal species group is overfished, and that the pelagic and small coastal species groups are fully fished. In June 1996, a new stock assessment was conducted to reevaluate the status of large coastal sharks. The most recent data indicate that the rapid rate of decline that characterized the stock in the mid 1980s has slowed significantly. However, the 1996 SEW found no evidence of stock rebuilding as of yet, because abundance estimates from the more recent years are variable and a significant statistical trend, either increasing or decreasing, could not be detected.

On April 7, 1997, NMFS published a final rule implementing several measures authorized by the Fishery Management Plan for Sharks of the Atlantic Ocean (FMP). These measures included reducing by 50 percent the commercial quota for large coastal sharks; reducing recreational bag limits for all sharks; establishing a commercial quota for small coastal sharks; prohibiting directed commercial fishing for, landing of, or sale of five species of sharks; establishing a recreational catch-and-release only fishery for white sharks; prohibiting filleting of sharks at sea; and referring to the requirement for species-specific identification by all owners or operators, dealers, and tournament operators of all sharks landed under the framework provisions of the FMP. This rule is intended to reduce effective fishing mortality, stabilize the large coastal shark population, facilitate enforcement, and improve management of Atlantic shark resources.



In late 1996 NMFS published and sought public comment on a proposed rule that would implement limited access measures in the commercial fishery for Atlantic sharks. The proposed rule and public comments on the rule are currently undergoing Agency review. If approved, the limited access system would establish a two-tiered permit system for the Atlantic shark commercial fishery, set forth eligibility criteria for those permits based on historical and current participation, and limit the transferability of those permits. NMFS has determined that the Atlantic shark fishery is overfished and overcapitalized, with an excessive number of permitted vessels relative to the harvest level prescribed by the recovery plan. In 1995, the number of commercial vessels permitted in the fishery was approximately 2,700 vessels, while mandatory logbook reports indicate that about 750 permit holders landed any sharks. The TAC has been typically been harvested by about 100 to 150 vessels. A limited access system would stabilize fleet size and dramatically reduce the number of speculative permit holders (those without significant documented landings of Atlantic sharks). NMFS anticipates implementing limited access measures in the commercial fishery for Atlantic sharks on January 1, 1998.

### *Billfish*

In 1988, the South Atlantic Fishery Management Council, in cooperation with the Caribbean, Mid-Atlantic, New England, and Gulf of Mexico Fishery Management Councils, prepared the original Fishery Management Plan (FMP) for Atlantic Billfishes. Species regulated under this FMP are: blue marlin, white marlin, sailfish, and longbill spearfish. In waters off of the continental U.S., the primary traditional use of Atlantic billfish resources has been in recreational fisheries, although billfish that were incidentally caught in commercial fisheries were marketed prior to the 1988 FMP. Fisheries in waters off Puerto Rico have also traditionally included a small-scale, handline subsistence fishery, in addition to a recreational fishery. These traditional use patterns were upheld by the FMP's objectives. The only constraint that was placed on the availability of billfish to recreational fishers was iterated in the OY, which called for "the greatest number of billfish that can be caught by the recreational fishery . . . considering the biological limitations of the stock and the unavoidable incidental catches in other fisheries."

The 1988 Atlantic billfish FMP became subject for review following the publication on July 24, 1989 of the 50 CFR 602 Guidelines, which interpret two of the seven national standards set forth in the Magnuson Fishery Conservation and Management Act (MFCMA). National standard 1 states that "Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, optimum yield from each fishery for the United States fishing industry." National standard 2 requires that conservation and management measures be based upon the best scientific information available. Under the 602 Guidelines, each FMP is required to specify, to the maximum extent practicable, an objective and measurable definition of overfishing for each stock or stock complex covered by that FMP. An overfishing definition serves as a threshold, below which the stock is considered to be in danger of recruitment failure. The 1988 Atlantic billfish FMP does not contain an overfishing definition for the stocks managed. However, the 1996 amendments to the Magnuson-Stevens Act modified the overfishing requirements and the FMP will need to be made consistent with these new requirements.

White and blue marlin stocks of the North Atlantic Ocean, sailfish stocks of the west Atlantic Ocean, and the longbill spearfish stocks of the entire Atlantic Ocean comprise the management units of the FMP. The FMP established a management regime for billfishes harvested from the management unit (extending beyond the EEZ) and possessed shoreward of the outer boundary of the U.S. EEZ of the Atlantic Ocean, Gulf of Mexico, and Caribbean Sea.

Under the current Atlantic billfish regulations, 50 CFR part 644, Atlantic billfish may only be harvested by rod and reel, and may not be purchased, bartered, traded, or offered for sale. These regulations are designed to remove any economic incentive for the commercial harvest or sale of billfish, effectively reserving the U.S. billfish resource for recreational and subsistence fishers. Incidental catch of billfish does occur in domestic pelagic longline fisheries, but retention of these incidentally caught fish is prohibited. Additionally, billfish harvested by gear other than rod and reel must be released in a manner that will ensure the maximum probability of survival. Pelagic longline fishers are required to release billfish by cutting the line near the hook, without removing the fish from the water. Retention of billfish caught by rod and reel is restricted through minimum size limits for each billfish species. There are no permit requirements nor bag limits; however, voluntary catch and release is estimated to be greater than 90 percent of fish caught.

## CURRENT FISHERY MANAGEMENT PLAN OBJECTIVES

Under requirements of the Magnuson-Stevens Act, a consolidated FMP (the HMS FMP) will be developed in draft form by October 1, 1998 that amends and/or replaces the existing FMPs for Atlantic sharks and swordfish and includes management measures for Atlantic tunas. A separate FMP for Atlantic Billfish already exists and will be amended by October 1, 1998. Objectives will be developed for the HMS FMP that include tunas, swordfish and sharks in order to integrate management of these apex predators, their ecosystem, and the overlapping commercial and recreational fisheries that they support. Objectives for the Billfish FMP amendment will also be developed. Additionally, an Essential Fish Habitat (EFH) amendment will be developed to address habitat issues for all HMS. The following section outlines objectives that are drawn from existing FMPs and will serve as a basis for the development of additional objectives. Some additional objectives that may be considered by NMFS, the HMS and Billfish APs, and the public are:

- Control fishing mortality to ensure long-term sustainability of the resource throughout their range.
- Enhance the economic value of landings and maximize the net economic benefits of the recreational and commercial fisheries, including consideration of ecosystem function, species biology and stock status.

### Atlantic Tunas

No FMP exists for Atlantic tunas. However, the final EIS, published July 20, 1995, (DOC, 1995) establishes the following management objectives to implement regulations on western Atlantic bluefin tuna consistent with ICCAT recommendations and other objectives. Continued prudent management is required to rebuild the bluefin tuna resource. The overall objective of the action described in the EIS is to meet management goals, as stated in the ICCAT and ATCA Conventions, and to ensure that these objectives are consistent with the National Standards contained in the MFCMA.<sup>6</sup> Specific objectives are:

- (1) To control fishing mortality so as to ensure the long-term sustainability of the resource and promote stock recovery to levels consistent with providing the ICCAT objective of MSY;
- (2) To provide the data necessary for monitoring the status of the bluefin tuna stock (according to ICCAT, a primary role of the western Atlantic bluefin tuna fishery is to provide scientific data for monitoring purposes);
- (3) To use an interactive management process consistent with MFCMA to determine allocation between user groups, areas and seasons, considering historical fishing patterns and participants, socio-economic effects, stock abundance, incidental catch and other relevant factors.

Additional objectives for the management of Atlantic bluefin tuna, adopted by the U.S. in

---

<sup>6</sup> It was determined that consistency with MFCMA National Standards was desirable, even though there is no Magnuson Act Plan or regulation currently in place or under development for Atlantic tunas.

1982 and re-affirmed in a 1992 rule are:

- (1) Implement ICCAT recommendations;
- (2) Provide the data necessary for monitoring the status of the stock;
- (3) Minimize economic displacement and preserve traditional fisheries; and
- (4) Maximize the use of the available resource and spread the opportunity among as many users as possible.

## **Swordfish**

The Atlantic swordfish FMP specifies five management objectives (SAFMC, 1985):

- (1) To enhance the economic value of the landings by controlling (reducing) the harvest of small swordfish.
- (2) To prevent or reduce growth overfishing and recruitment overfishing.
- (3) To obtain scientific information for the purpose of monitoring the fishery.
- (4) To monitor and mitigate user group conflicts.
- (5) To minimize the impacts of foreign fishing on the domestic United States swordfish fishery.

Draft Amendment 1 (NMFS, 1997) proposes that the management objectives be updated and clarified by substituting the following:

- (1) To control fishing mortality to promote stock recovery to the level of maximum economic yield (MEY) and ensure long-term sustainability of the resource at that level.
- (2) To eliminate overcapitalization of the fishery and maximize net economic benefits.
- (3) To provide those data necessary for monitoring the status of the swordfish stock (and related species) and the fisheries that depend upon it.
- (4) To use an interactive management process consistent with the Magnuson-Stevens Act to determine allocations between user groups, areas and seasons, considering historical fishing patterns and participants, socio-economic effects, stock abundance, incidental catch, and other relevant factors.
- (5) To minimize the impacts of foreign fishing on the domestic swordfish fishery.

Additional options that could be considered for swordfish management include:

- (1) Promote international conservation and management of swordfish populations.

- (2) Minimize the impacts of foreign fishing on the domestic swordfish fishery.

## **Sharks**

As outlined in the 1993 FMP, the management objectives are:

- (1) Prevent overfishing of shark resources.
- (2) Encourage management of shark stocks throughout their ranges.
- (3) Establish a shark resource data collection, research, and monitoring program.
- (4) Increase the benefits from shark resources to the U.S. while reducing waste, consistent with the other objectives.

Additional options that could be considered for shark management include:

- (1) Promote international conservation and management of shark populations.
- (2) Minimize the impacts of foreign fishing on the domestic shark fishery.

## **Billfish**

The 1988 FMP lists the following management objectives:

- (1) Maintain the highest availability of billfishes to the U.S. recreational fishery by implementing conservation measures that will reduce fishing mortality.
- (2) Optimize the social and economic benefits to the nation by reserving the billfish resource for its traditional use, which on the continental U.S. is almost entirely a recreational fishery. In the Caribbean, the fishery is both a recreational and small-scale handline fishery where billfishes are used as food.
- (3) Increase understanding of the condition of billfish stocks and the billfish fishery.

However, the Magnuson-Stevens Act will require changes to the FMPs that reflect the National Standard objectives. The following objectives might also be considered for the Atlantic billfish FMP.

- Eliminate mention of the historical artisanal fishery in the Caribbean.
- Promote international conservation of Atlantic billfishes.
- Prevent localized overfishing.
- To rebuild stocks consistent with the National Standards.

## **Consistency with Other Applicable Laws**

In addition to meeting the requirements of the Magnuson-Stevens Act, and the Atlantic Tunas Convention Act, the Highly Migratory Species FMP and the Atlantic Billfish FMP Amendment and implementing regulations must comply with other applicable laws, such as:

- the National Environmental Policy Act (NEPA);
- the Endangered Species Act (ESA);
- the Marine Mammal Protection Act (MMPA);
- the Regulatory Flexibility Act (RFA);
- the Paperwork Reduction Act (PRA);
- Executive Order 12866 (Regulatory Planning and Review);
- Executive Order 12962 (Recreational Fishery Policy Statement);

## **International Conservation and Management Agreements**

Because many nations fish for Atlantic HMS, an FMP or FMP amendment for these fisheries must include strategies to promote international conservation and management of these species. The United States is signatory to several international fishery conservation and management agreements, including the U.N. Straddling Stocks Agreement and the U.N. Code of Conduct for Responsible Fishing. Both of these international agreements call for use of the precautionary approach to fisheries management. A strategy to promote international conservation and management would also include consideration of the following:

- Establishing quota reductions and rebuilding schedules
- Protecting essential habitats from fishing activities
- Minimizing bycatch and bycatch mortality
- Promoting effective compliance and enforcement
- Ensuring international compliance with conservation and management measures

## **ISSUES AND OPTIONS: ATLANTIC TUNAS, SWORDFISH AND SHARKS**

The primary purpose of this scoping document, and of the series of public scoping meetings to be held during the fall of 1997, is to articulate all of the issues in Atlantic HMS fisheries and identify the full range of options to address those issues in rebuilding the stocks. The following issues and options were developed by NMFS and the HMS Advisory Panel. The list of issues and options presented below is intended to serve as a starting point for a discussion of future HMS management and should not be considered comprehensive. Some options are in place under current management and may be retained. Enforcement feasibility should be considered for each alternative. Some options may not be allowed under existing law but are included in order to identify the full range of management options. NMFS anticipates that other issues and options will be identified by the public and the Advisory Panels during the scoping process. Issues are listed in bold followed by bulleted lists of options. Neither issues nor options are listed in any particular order. Issues and options for Atlantic billfish are discussed in the following chapter.

\* Options identified as such can be considered but may not possible without changes to existing law.

### **ISSUE: Develop overfishing criteria, including overfishing threshold**

As required by the Magnuson-Stevens Act, NMFS will specify objective and measurable criteria for identifying when a fishery is overfished (including an analysis of how the criteria were determined and the relationship of the criteria to the reproductive potential of stocks of fish in that fishery).

- OPTIONS**
- Establish objective and measurable criteria for identifying when any species is overfished
  - Establish a qualitative estimate to determine OY
  - Estimate the OY and fishing mortality that would produce OY on a continuing basis
  - Consider the domestic share in fishing mortality of HMS

**ISSUE:      Develop and promote international and domestic rebuilding strategies**

As required by the Magnuson-Stevens Act, NMFS will develop rebuilding strategies for those species which are designated as overfished. See Table 1 for a list of HMS which were identified as overfished. Because so many of the HMS are harvested internationally, rebuilding is dependent on the cooperation of a number of nations.

- OPTIONS:**
- Consider fishing effort and fishing mortality
  - Develop a long-term harvest strategy that will produce sustainable OY
  - Implement drastic cutbacks in both recreational and commercial fishing mortality with resulting short recovery periods (<10 years)\*
  - Implement moderate cutbacks in both recreational and commercial fishing mortality with resulting longer recovery periods (>10 years)
  - Select other rebuilding strategies, with or without effort reduction
  - Select rebuilding trajectories based upon trends in average size or number of fish harvested
  - Promote stock rebuilding strategies that can be presented internationally
  - Identify apex predator population sizes and age structures for HMS that are needed
    - (1) to provide optimum yield, and
    - (2) to protect marine ecosystems' stability and health
  - Develop management strategies to prevent exceeding biological reference points
  - Analyze degree of various risks associated with different management strategies
  - Identify and protect essential fish habitat



**ISSUE:      Control fishing mortality in HMS fisheries**

As the number of recreational and commercial fishery participants increases, there is a need to control fishing mortality in HMS fisheries through direct fishing effort reduction or significant increase in post-release survival of incidentally caught fishes.

- OPTIONS:**
- Limit access to fisheries and reduce effort
  - Establish eligibility periods for acceptance of historical landings data
  - Allow transferability of permits
  - Consider limitations imposed on vessel size (gross registered tonnage, gross length, hold capacity, etc.)
  - Restrict vessel/gear upgrading (consistent with Council regulations)
  - Consolidate/retire permits
  - Consider control date in place for Atlantic tunas
  - Establish a permit and/or control date for Charter/Headboats
  - Establish regional control dates
  - Prohibit spotter planes in all recreational and commercial fisheries
  - Implement a recreational bag limit and/or trip limit for BAYS
  - Establish minimum and/or maximum size limits for all species (age at maturity, length, biomass)
  - Reevaluate species management groups
  - Prohibit the use of fishing forecasting services in all fisheries\*
  - Establish time/area closures to avoid capture of spawning and/or juvenile stages of target catch and all stages of non-target catch
  - Limit days-at-sea
  - Require gear modifications and deployment for commercial and recreational fisheries including:
    - Length of longline
    - Hook style and construction
    - Leader style and construction
    - Reduction of longline soak time
    - Prohibition on chunking and live-baiting
    - Hook removal
    - Mandatory approved de-hooking device on board
  - Identify authorized gears (allowable gears by fishery, time, area)
  - Reduce catch and mortality of juvenile HMS
  - Consider minimum size for retention
  - Account for dead discards in quota monitoring, count against bag limits
  - Reduce quotas\* and bag limits
  - Develop phase-out program for hook fishing (commercial and recreational)
  - Prevent an individual vessel from participating in both recreational and commercial fisheries

**ISSUE: Minimize bycatch and increase survivability of unavoidable bycatch**

A provision of the 1996 MSFCMA requires that bycatch and bycatch mortality be minimized to the extent practicable.

- OPTIONS:**
- Implement time/area closures to avoid bycatch of certain species and size or age classes
  - Explore gear and deployment modifications in commercial and recreational fisheries to reduce bycatch and bycatch mortality including establishing guidelines for:
    - Use of light tackle
    - Length of longline
    - Hook style and construction
    - Leader style and construction
    - Longline soak time
    - Chunking and live-baiting
    - Hook removal
    - Mandatory approved de-hooking device on board
  - Consider options for utilization of regulatory discards
  - Increase survivability of discarded catch through changes in gear deployment or catch handling
  - Develop technology to decrease marine mammal bycatch in net and longline fisheries
  - Develop standard procedures for catch and release fishing to minimize post-release mortality
  - Re-assess target catch requirements (by number or weight) for bycatch minimization
  - Re-assess incidental catch limits (e.g., number of swordfish per trip during closure)
  - Establish incidental harvest and bycatch quota set-asides
  - Determine fishery-specific bycatch rates
  - Consider reduction in minimum size in conjunction with reduction in quota with the same fishing mortality rate\*
  - Consider ways to reduce bycatch of endangered species, marine mammals and sea birds

**ISSUE:      Allocation of Quotas:   how can domestic quotas be allocated?**

For swordfish and tunas, U.S. quotas are determined by ICCAT recommendations. Under ATCA, the United States cannot increase or decrease these quotas. The United States, however, can address issues of sub-division for each quota. Quotas in the Atlantic shark fishery are developed by NMFS.

- OPTIONS:**
- Establish regional or state-by-state sub-quotas
  - Move the north/south division line
  - Allow fisheries to carry quota overage/underage across years or seasons
  - Establish incidental harvest and bycatch quota set-asides
  - Re-evaluate allocation of scientific research and exempted fishing permits
    - How many?
    - Process?
    - Separate quota?
    - Reporting requirements?
  - Re-evaluate permitted gear types for HMS fisheries (e.g., sink gillnets, spears)
  - Consider individual transferable quota system for implementation after 2001
  - Establish quotas for yellowfin tuna
  - Re-evaluate quota allocations throughout HMS fisheries, e.g., reductions in purse seine allocations, small fish quotas, etc.
  - Allocate ABT quota for scientific purposes only
  - Consider multi-year quotas
  - Implement a moratorium on catch for Atlantic HMS
  - Prohibit directed purse seine fishery for yellowfin tuna

**ISSUE:      Increase economic value of U.S. fisheries**

As stocks of some highly migratory species decline, it is important to increase the economic value of U.S. commercial landings. Additionally, the U.S. recreational fishery has increasingly valuable and far-reaching economic impacts throughout the HMS management area.

- OPTIONS:**
- Establish an offloading window following a fishing closure to avoid market gluts and storage and transportation problems associated with directed fishery closure
  - Increase quality of landed fish (e.g., harpoon purse-seined fish)
  - Allocate Atlantic bluefin tuna effort to consider economic return from tuna sold in international markets
  - Enhance the economic value of the ABT fishery by allowing the sale of fish >47 inches
  - Consider flexibility in bag limits/seasonal restrictions within the quota
  - Consider individual transferable quotas (note: cannot be implemented until October 1, 2000)
  - Consider the net economic benefits of the recreational fishery and maximize the return to recreational fishers
  - Consider buyout programs for recreational and commercial fishers
  - Consider prohibiting imports during a U.S. fishery closure

**ISSUE:      What is Essential Fish Habitat (EFH) for Atlantic HMS?**

A requirement of the MSFCMA is to identify and describe EFH and to minimize to the extent practicable adverse effects on EFH. This issue is particularly challenging because these species use critical habitats surrounding other nations. It has not yet been determined whether NMFS can identify HMS EFH outside the U.S. exclusive economic zone.

- OPTIONS:**
- Identify EFH throughout range
  - Identify EFH in U.S. EEZ
  - Identify *Sargassum* communities as EFH
  - Identify primary spawning, nursery and feeding areas and migration routes for HMS (e.g., larval surveys)
  - Identify threats to habitats essential to HMS
  - Identify options to reduce all adverse effects (fishing and non-fishing) on EFH
  - Integrate EFH provisions for HMS fishery management plans with those of prey species (e.g., squid, mackerel, herring FMPs)

**ISSUE: Promote human safety at sea**

NMFS must, to the extent practicable, promote the safety of human life at sea. Fisheries with a large number of participants and a relatively small quota such as the shark and drift gillnet swordfish fisheries are subject to derby fishing conditions which encourage pursuing the maximum amount of the quota despite bad weather or vessel conditions.

- OPTIONS:**
- Consider the effect of General category tuna effort controls on safety
  - Reduce derby fishing conditions
  - Consider individual fishing quotas (e.g., ITQ implementation after Oct. 1, 2000)
  - Consider safety when establishing number of ports for offloading in the swordfish fishery
  - Consider vessel upgrades with limited hold capacity

**ISSUE: Minimize, to the extent practicable, any disadvantage to U.S. fishermen**

U.S. fishermen may be disadvantaged when regulations of and compliance by other nations are inconsistent with ICCAT recommendations that have been adopted by NMFS. NMFS must minimize, to the extent practicable, any disadvantage to U.S. fishermen.

- OPTIONS:**
- Control vessel re-flagging
  - Restrict imports of Atlantic HMS to conform to U.S. fishery standards (e.g., minimum sizes) or ICCAT standards
  - Promote international compliance with conservation and management recommendations by ICCAT, particularly ICCAT members
  - Eliminate the prohibition on sale of ABT 47"-73"
  - Consider economic reprisal other than trade restrictions for international overharvesters
  - Set import caps at ICCAT quota levels
  - Prohibit imports during a U.S. fishery closure
  - Require equivalent reporting by importers and U.S. commercial fishers
  - Remove restrictions on U.S. fishers that are not required by ICCAT

**ISSUE: Minimize, to the extent practicable, adverse impacts on fishing communities**

Reductions in fishing effort may lead to socio-economic changes in fishing-dependent communities. Consideration of these effects is an integral part of fishery management.

- OPTIONS:**
- Vessel/gear buyback programs for commercial and recreational industry participants
  - Limited access with pathways for new entrants
  - Assess social and economic dependence on fishing including history, value, distribution, and structure
  - Prohibit reallocation of historical fishing shares
  - Rebuild overfished fisheries

**ISSUE: Improve data collection and monitoring of the fisheries (both recreational and commercial)**

A wide-spread issue in the management of all fisheries is the collection of data. Currently, participants in the HMS commercial fisheries submit daily logbook reports, weigh out and/or tally sheets and dealer reports. Recreational fishermen in Maine through North Carolina are subject to the Large Pelagic Survey; a combination of dockside sampling and telephone surveying. Atlantic bluefin tuna recreational fishermen are required to call 888-USA-TUNA to report their catch. NMFS is planning two pilot surveys to supplement data collection in the recreational fisheries for HMS in 1998: a mandatory tagging program in North Carolina of all ABT and a Charter/Headboat logbook program in New Jersey. The results of these and other surveys will be used to assess the future path of fishery sampling.

- OPTIONS:**
- Continue existing successful data collection programs
  - Require mandatory species-specific logbook reporting for all commercial and charter/headboat vessels
  - Require mandatory species-specific tournament reporting
  - Require mandatory permitting for all importers of highly migratory species
  - Require mandatory observer coverage for all commercial and charter/headboat vessels
  - Improve permitting systems for vessels, dealers, tournaments, experimental fisheries
  - Utilize new technologies (e.g., FAX/Optical Character Recognition (OCR), Interactive Voice Response (IVR), Vessel Monitoring Systems (VMS), electronic logbooks) for quota monitoring and data collection
  - Develop one HMS permit with check-off for species
  - Require formalized catch reporting by recreational fishermen
  - Mandate logbook reporting for all commercial and charter/headboat vessels

- (coordinate with Atlantic Coast Cooperative Statistics Program)
- Develop real-time reporting methods to monitor derby conditions in all HMS fisheries
- Streamline reporting requirements
- Promote consistency between state and federal regulations
- Streamline and simplify permitting process
- Improve recreational catch monitoring
- Implement big game tag program (e.g., Florida tarpon tag program)
- Develop citation program (e.g., North Carolina recreational fisheries)
- Require tagging of each ABT caught and released alive in commercial and recreational fisheries
- Continue historical data recovery (e.g., shark fin database records to provide complete historical records of shark landings, CPUE, and fishing mortality)
- Improve accurate field identification of highly migratory species (especially sharks and tunas) by developing field guides and/or conducting workshops
- Support international data exchange
- Pursue fishery-independent sampling programs
- Develop standards for monitoring recreational and commercial fishing release mortality
- Monitor trade for all species by implementing certificate of origin for domestic and international shipments of HMS
- Determine incidental catch levels for all recreational and commercial HMS fisheries
- Improve post-release mortality statistics for both recreational and commercial fisheries for use in stock assessments
- Utilize aerial surveys to document stock and/or fleet size
- Allow the sale of undersized ABT to enhance monitoring of small fish catch
- Consider 100% bycatch retention to ensure all mortalities are monitored
- Develop programs to encourage tag returns in commercial fisheries

**ISSUE: Develop strategies to improve enforcement of HMS regulations/FMPs**

Due to the widespread nature of HMS fisheries (Atlantic and Gulf Coast and Caribbean Sea), some regulations may be difficult to enforce. Effective enforcement of regulations is critical to the success of management programs. The Highly Migratory Species Management Division currently works with the NMFS Office of Enforcement and the U.S. Coast Guard to facilitate implementation and enforcement of regulations.

- OPTIONS:**
- Develop consistent methods for catch measurement
  - Implement VMS monitoring
  - Develop an enforcement sub-committee of the HMS AP to involve co-operative law enforcement entities (U.S. Coast Guard and states) in HMS management
  - Use permit sanctions and revocations for violators
  - Establish an operator's permit for HMS commercial fisheries
  - Establish and implement strict/appropriate penalty schedules
  - Consider establishment of strict closures instead of trip limits
  - Develop species-specific field guides for all HMS
  - Condition acceptance of management measures/options on enforcement feasibility
  - Support increase of FTEs and budget for Office of Enforcement

**ISSUE: Management Structure and Process**

Management of Atlantic HMS takes place with extensive input from the public, the scientific community, and a number of advisory bodies.

- OPTIONS:**
- Develop criteria to determine the best available science
  - Establish peer-review process
  - Consider role and function of advisory bodies (e.g., Shark Operations Team)



## **ISSUES AND OPTIONS: ATLANTIC BILLFISH**

The following issues and options were developed by NMFS and the Billfish Advisory Panel. The list of issues and options presented below is intended to serve as a starting point for the discussion of billfish management issues and should not be considered comprehensive. NMFS anticipates that other issues and options will be identified by the public during the scoping process. Some options are in place under current management and may be retained. Enforcement feasibility should be considered for each alternative. Issues listed below are not in any particular order. Issues and options for Atlantic tunas, swordfish and sharks are discussed in the previous chapter.

NMFS solicits public comment on the following issues and options and any others which may be relevant to rebuilding and managing Atlantic Billfish.

### **ISSUE:        Develop overfishing criteria, including overfishing threshold**

As required by the Magnuson-Stevens Act, NMFS will specify objective and measurable criteria for identifying when a fishery is overfished (including an analysis of how the criteria were determined and the relationship of the criteria to the reproductive potential of stocks of fish in that fishery).

- OPTIONS:**
- Establish objective and measurable criteria for identifying when any individual billfish species is overfished
  - Estimate optimum yield (OY) and fishing mortality that would produce OY on a continuing basis
  - Establish a long-term harvest strategy that would produce a long-term catch close to OY

### **ISSUE:        Develop and promote international and domestic rebuilding strategies**

As required by the Magnuson-Stevens Act, NMFS will develop rebuilding strategies for those species which are designated as overfished. See Table 1 for a list of HMS which were identified as overfished. Because so many of the HMS are harvested internationally, rebuilding is dependent on the cooperation of a number of nations.

- OPTIONS:**
- Implement drastic cutbacks for both recreational and commercial fishing mortality and shorter recovery periods (< 10 years)
  - Implement moderate cutbacks in fishing mortality and longer recovery periods (>10 years)
  - Status Quo

**ISSUE:                      Reduce fishing mortality (recreational and commercial)**

As the number of fishery participants increases and as stocks are identified as overfished, there is a need to control fishing mortality in HMS fisheries through direct fishing effort reduction or significant increase in post-release survival of incidentally caught fishes.

- OPTIONS:**
- Require billfish catch and release only (recreational and commercial fisheries)
  - Establish a quota system, bag limits, minimum and/or maximum size limits, big game tag with cap on number of tags (recreational fishery)
  - Establish time/area closures related to juvenile or spawning fish concentrations
  - Prohibit the use of spotter aircraft, fishing forecasting services
  - Limit access to recreational fishery, moratorium on recreational permits, lottery fishery
  - Limit access to longline fishery throughout permitting or days-at-sea
  - Require gear and gear deployment modifications for recreational and commercial fisheries
    - Length of longline
    - Hook style and construction
    - Required approved dehooking device on board
    - Leader style and construction
    - Reduction of longline soak time
    - Prohibition on chunking and live baiting
    - Hook removal

**ISSUE:                      Identify Essential Fish Habitat**

A requirement of the MSFCMA is to identify and describe EFH and to minimize to the extent practicable adverse effects on EFH. This issue is particularly challenging because these species use critical habitats surrounding other nations. It has not yet been determined whether NMFS can identify HMS EFH outside the U.S. exclusive economic zone.

- OPTIONS:**
- Identify essential habitat in U.S. Exclusive Economic Zone only
  - Identify essential habitat throughout range of species
  - Designate nearshore South Atlantic coast as EFH for juvenile billfish
  - Identify and protect spawning sites in the Gulf of Mexico, Caribbean Sea
  - *Sargassum* communities as essential fish habitat

**ISSUE: Promote human safety at sea**

NMFS must, to the extent practicable, promote the safety of human life at sea.

**OPTIONS:** • Vessel monitoring system

**ISSUE: Data Collection and Monitoring of the Fishery**

A wide-spread issue in the management of all fisheries is the collection of data. Currently, participants in the billfish fishery are subject to the Large Pelagic Survey and the Marine Recreational Fishery Statistics Survey (MRFSS) which combine dockside sampling and telephone surveying. Billfish tournaments are also subject to sampling.

**OPTIONS:** •

- Require tournament reporting, logbooks, observers for recreational and/or charter/headboat vessels
- Require use of billfish retention tags (all landed fish must be tagged and card submitted)
- Develop citation program (e.g., modeled after NC state citation program)
- Require mandatory permitting for recreational, charter, headboat vessels (any or all)
- Track billfish sales and enforcement of no sale provision/ban sale in U.S.
- Require documentation form for billfish sale
- Require permit for all billfish dealers (1st receivers)

**RESEARCH NEEDS:**

- What apex predator population sizes and age structures for HMS are needed  
(1) to provide optimum yield, and  
(2) to protect marine ecosystems' stability and health?
- Identification of primary spawning, nursery and feeding areas and migration routes
- Threats to habitats essential to Atlantic HMS
- Fishing mortality reduction by other nations' commercial fleets
- Strategies to promote stock rebuilding, internationally
- International compliance with conservation and management recommendations by ICCAT, particularly ICCAT members
- Data collection and monitoring

# APPENDIX I: HMS SCOPING SCHEDULE

OCTOBER-NOVEMBER 1997

Date	Location
<b>Monday, Oct 27</b> 7:00-10:00 p.m.	<b>Holiday Inn</b> 290 State Highway 37 East Toms River, NJ 08753 (908) 244-4000
<b>Monday, Oct. 27</b> 6:30-9:30 p.m.	<b>SC Dept. of Natural Resources</b> Marine Research Institute Auditorium 217 Fort Johnson Road Charleston, SC (803) 762-5037
<b>Tuesday, Oct 28</b> 7:00-10:00 p.m.	<b>City Hall</b> 3rd St. and Baltimore Ave. Ocean City, MD 21842 (410) 289-8221
<b>Tuesday, Oct. 28</b> 7:00-10:00 p.m.	<b>Comfort Inn I-95</b> 5308 New Jesup Hwy. Brunswick, GA 31523 (912) 264-7268
<b>Tuesday, Oct. 28</b> 7:00-10:00 p.m.	<b>The San Luis</b> 5222 Sea Wall Blvd. Galveston, TX 77551 (409) 744-1500
<b>Tuesday, Oct 28</b> 7:00-10:00 p.m.	<b>Holiday Inn (site of MAFMC meeting)</b> 3900 Atlantic Avenue Virginia Beach, VA 23451 (757) 428-1711
<b>Wednesday, Oct. 29</b> 7:00-10:00 p.m.	<b>Holiday Inn</b> 1300 North Atlantic Ave. Cocoa Beach, FL 32931 (407) 783-2271

<b>Wednesday, Oct. 29</b> 7:00-10:00 p.m.	<b>NC Aquarium Auditorium</b> Airport Road Manteo, NC 27954 (919) 473-3494
<b>Wednesday, Oct. 29</b> 7:00-10:00 p.m.	<b>The Hampton Inn</b> 32988 Perdido Beach Blvd. Orange Beach, AL 36561 (334) 974-1598
<b>Thursday, Oct. 30</b> 7:00-10:00 p.m.	<b>Riverhead Town Hall</b> 200 Howell Avenue (corner E. Main) <b>Riverhead, NY 11901</b> (516) 727-3200
<b>Monday, Nov. 3</b> 7:00-10:00 p.m.	<b>Holiday Inn (site of U.S. IAC meeting)</b> Georgia Avenue Silver Spring, MD 20910 (301) 589-0800
<b>Tuesday, Nov. 4</b> 7:00-10:00 p.m.	<b>Holiday Inn By the Bay ( site of NEFMC meeting)</b> 88 Spring St. Portland, ME 04101 (207) 775-2311
<b>Tuesday, Nov. 4</b> 4:00-7:00 p.m.	<b>Holiday Inn Beachside</b> Marquesas Room 3841 N. Roosevelt Blvd. Key West, FL 33040 (305) 294-2571
<b>Wednesday, Nov. 5</b> 7:00-10:00 p.m.	<b>Sheraton Biscayne Bay Hotel</b> Washington Room 495 Brickell Avenue Miami, FL 33131 (305) 373-6000
<b>Thursday, Nov. 6</b> 7:00-10:00 p.m.	<b>Game Fishing Club of the Virgin Islands</b> (above Frigate Restaurant) Red Hook St. Thomas, U.S. Virgin Islands 00802 <b>(809) 775-9144</b>

<b>Thursday, Nov. 6</b> 7:00-10:00 p.m.	<b>Corliss Auditorium, Watkins Building</b> Graduate School of Oceanography University of Rhode Island 215 South Ferry Road Narragansett, RI 02882 (401) 874-6222
<b>Friday, Nov. 7</b> 2:00-5:00 p.m.	<b>Club Nautico</b> 482 Fernandez Juncos Avenue Old San Juan, Puerto Rico 00905 (787) 722-0177
<b>Friday, Nov. 7</b> 2:00-5:00 p.m.	<b>NMFS</b> Northeast Regional Office 1 Blackburn Drive Gloucester, MA 01930 (508) 281-9260
<b>Friday, Nov. 7</b> 10:00 a.m. - 1:00 p.m.	<b>International WorkBoat Show</b> Ernest N. Morial Convention Center - Rm#16 New Orleans, LA
<b>Monday, Nov. 10</b> 7:00-9:00 p.m.	<b>Holiday Inn Long Boat Key ( site of GMFMC meeting)</b> 4949 Gulf of Mexico Drive Long Boat Key, FL 34228 (941) 383-3771
<b>Tuesday, Nov. 18</b> 7:00-10:00 p.m.	<b>Duke University Marine Laboratory (site of SAFMC meeting)</b> 135 Duke Marine Lab Road Beaufort, NC 28546 (919) 504-7504

**APPENDIX II: SCHEDULE FOR DEVELOPMENT OF FMP DOCUMENTS  
FOR ATLANTIC HIGHLY MIGRATORY SPECIES**

(This is a **DRAFT** timetable for discussion only)

<b>Stage of FMP (or amendment) development</b>	<b>Tentative Date</b>
AP meetings (input for issues/options paper)	Sept/Oct 1997
Public Scoping Meetings	Oct/Nov 1997
AP meetings (to review scoping results)	Jan/Feb 1998
AP meetings (to review pre-draft FMP, proposed rule)	Summer 1998
Draft FMP and EIS, proposed rule	October 1998
Public Hearings	Oct/Nov 1998
Final FMP and EIS	January 1999

**We invite comment on this public scoping document. You may do so in one of two ways:**

- 1) Attend any of the public meetings listed on the following page in most coastal states and/or
- 2) Send written comments to the following address:

Rebecca Lent, Chief  
Highly Migratory Species Management Division (F/SF1)  
National Marine Fisheries Service  
1315 East-West Highway  
Silver Spring, MD 20910

phone: (301) 713-2347  
FAX: (301) 713-1917

### **APPENDIX III: MAGNUSON-STEVENS ACT REQUIREMENTS**

Summarized below are the major requirements of the Magnuson-Stevens Act for the development and content of fishery management plans. Congress made several important additions to the Magnuson-Stevens Act when it was reauthorized in October 1996. These changes relate primarily to developing strategies to rebuild overfished fisheries, reduce bycatch and bycatch mortality, and identify and protect essential habitat. The law also created advisory panels to assist NMFS in the collection and evaluation of information during the FMP development process. These legislative changes will re-direct much of NMFS' efforts between now and October 1998 in developing proposed regulations, draft FMP documents and draft EIS documents covering all Atlantic HMS, including other required analyses (e.g., Regulatory Impact Review).

Highlights of the requirements for FMPs and amendments (using the organization found in the statute) are paraphrased as follows:

#### ***Advisory Panels (Section 302(g)(1))***

The Secretary is required to establish Advisory Panels (APs) to assist in the preparation of FMPs or plan amendments required by the Act.

#### ***Contents of Fishery Management Plans/Amendment (Section 303)***

(a) REQUIRED PROVISIONS: Any FMP prepared shall --

- (1) Contain the conservation and management measures which are necessary and appropriate or useful to prevent overfishing and rebuild overfished stocks and which protect, restore and promote the long-term health and stability of the fishery.<sup>7</sup>
- (2) Contain a description of the fishery
- (3) Assess and specify the present and probable future condition of, and the MSY and OY<sup>8</sup> from, the fishery.
- (4) Assess and specify --
  - (A) the capacity and extent to which vessels of the United States will, on a continuing basis, harvest the OY,
  - (B) the portion of the OY that will not be harvested by the United States and can be made available for foreign fishing, and
  - (C) the capacity and extent to which United States fish processors, on an annual basis, will process that portion of such OY as will be harvested by fishing vessels of the United States.
- (5) Specify the pertinent data that will be submitted to the Secretary with respect to commercial, recreational, and charter fishing in the fishery
- (6) Consider and provide for temporary adjustments regarding access to the fishery for vessels otherwise prevented from harvesting because of weather or other ocean

---

<sup>7</sup>"Overfishing" and "overfished" are newly defined.

<sup>8</sup>"Optimum yield" is newly defined.



- conditions affecting the safe conduct of the fishery
- (7) Describe and identify essential fish habitat and minimize adverse effects caused by fishing.<sup>9</sup>
  - (8) Assess and specify the nature and extent of scientific data which is needed for effective implementation of the plan.
  - (9) Include a fishery impact statement for the plan or amendment which shall assess, specify, and describe the likely effects, if any, of the conservation and management measures on --
    - (A) participants in the fisheries and fishing communities affected by the plan or amendment; and
    - (B) participants in the fisheries conducted in adjacent areas under the authority of another Council, after consultation with such Council and representatives of those participants.
  - (10) Specify criteria for identifying when the fishery is overfished; and if overfished or approaching a condition of being overfished, the FMP shall contain conservation and management measures to end or prevent overfishing and to rebuild the fishery.
  - (11) Establish a standardized reporting methodology to assess the amount and type of bycatch occurring in the fishery, and include conservation and management measures to minimize bycatch and bycatch mortality.
  - (12) Assess the composition and mortality of fish released alive by recreational fishers and incorporate measures to minimize such mortality to the extent practicable.
  - (13) Assess the type, amount, and mortality of fish caught and released alive during recreational fishing under catch and release fishery management programs and include conservation and management measures to minimize such mortality to the extent practicable.
  - (14) Allocate any harvest restrictions or recovery benefits fairly and equitably among the commercial, recreational, and charter fishing sectors in the fishery.

---

<sup>9</sup>"Essential fish habitat" is defined.

***Rebuilding Overfished Fisheries (Section 304 (e))***

- (1) The Secretary shall report annually on the status of U.S. fisheries and identify those that are overfished or approaching a condition of being overfished using criteria specified in the FMP or international agreement.
- (2) If the Secretary determines at any time that a fishery is overfished, he shall immediately request that action be taken to end overfishing and to implement conservation and management measures to rebuild the stock(s).
- (3) Within one (1) year of identification by the Secretary, an FMP or amended FMP and proposed regulations shall be prepared to
  - (A) End overfishing and rebuild the stock, or
  - (B) Prevent overfishing from occurring.
- (4) For a fishery that is overfished, the FMP shall
  - (A) Specify a time period for ending overfishing and rebuilding the fishery that shall --
    - (i) be as short as possible,
    - (ii) not exceed 10 years, except in cases where the biology of the stock of fish, other environmental conditions, or management measures under international agreement in which the United States participates dictate otherwise.
  - (B) Allocate restrictions and benefits equitably among sectors of the fishery.
  - (C) Reflect traditional participation in the fishery by U.S. fishermen relative to foreign competitors.

***Atlantic HMS Provisions (Section 304 (g))***

- (1) In preparing any FMP dealing with HMS, the Secretary shall
  - (A) Consult with and consider the comments and views of the Councils, U.S. ICCAT Commissioners and Advisory Committee members and HMS Advisory Panels (AP).
  - (B) Establish APs for each FMP prepared.
  - (C) Evaluate the likely effects, if any, on U.S. fishers and minimize, to the extent practicable, disadvantages in relation to foreign competitors.
  - (D) Provide U.S. fishers a reasonable opportunity to harvest internationally set allocations or quotas.
  - (F) Diligently pursue, through international entities (e.g., ICCAT), comparable international fishery management measures for HMS .
  - (G) Ensure that conservation and management measures:
    - (i) promote international conservation;
    - (ii) take into consideration traditional fishing patterns of fishing vessels of the U.S. and the operating requirements of the fisheries;
    - (iii) are fair and equitable in allocating fishing privileges and do not have economic allocation as the sole purpose; and
    - (iv) promote, to the extent practicable, implementation of scientific research programs that include tagging and release.

### *National Standards (Section 301)*

Conservation and management measures shall:

1. Prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the U.S. fishing industry.
2. Be based upon the best scientific information available.
3. To the extent practicable, manage an individual stock of fish as a unit throughout its range and interrelated stocks of fish shall be managed as a unit or in close coordination, to the extent practicable.
4. Not discriminate between residents of different states. Allocation of fishing privileges shall be (A) fair and equitable to all fishermen; (B) reasonably calculated to promote conservation; and (C) carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.
5. Where practicable, consider efficiency in the utilization of fishery resources; except that no such measure shall have economic allocation as its sole purpose.
6. Take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches.
7. Where practicable, minimize costs and avoid unnecessary duplication.
8. To the extent practicable, take into account the importance of fishery resources to fishing communities in order to (A) provide for the sustained participation of such communities, and (B) to the extent, minimize adverse economic impacts on such communities.
9. To the extent practicable, minimize bycatch and the mortality of bycatch that cannot be avoided.
10. To the extent practicable, promote the safety of human life at sea.